Cost Estimate Checklist Information

The checklists supplied in this section are intended to provide the user with guidance concerning what items are included for Technical Memorandum. It must be noted that these checklists are not intended to explain the engineering design process or specific design requirements, nor are they an exhaustive listing of all potentially pertinent project data, information, or criteria. As all engineering projects are unique and different, each will require that the professional(s) exercise appropriate professional judgment when determining what items must be included. For additional information regarding the engineering design process or specific design requirements, refer to the Project Development Manual (PDM)

Quality Control

On the following page, the designer shall fill in the headings "Project Name", "Project Number", "Designer", and "Submittal Date". The check boxes shown on the left side of each checklist are intended to be used by the designer preparing the submittal. These boxes should be checked as each item is completed and included in compliance with the appropriate guidelines. Should any item not be applicable, the designer shall mark that item with 'N/A' in place of checking the box. If any items not specifically mentioned in the checklist are needed, the designer shall add them to the checklists under the 'Others' category.

A Quality Control Compliance Form shall be completed and signed by the designer, attesting that the quality control process and MCDOT requirements were followed in developing this submittal. Only one QC Compliance form shall be submitted per submittal followed by the appropriate checklist(s).

Content Verification

On the following page, the MCDOT Project Manager shall fill in the headings "Project Manager" and "Content Verification Date". The check boxes shown on the right side of each checklist are intended to be used by the MCDOT Project Manager for content verification. These boxes should be checked as the MCDOT Project Manager verifies that each item is included (Yes), is not included (No), or the item is not applicable (N/A) and therefore not required.

The MCDOT Project Manager will sign the Project Manager Content Verification Form before forwarding the checklist to the reviewer(s).

Cost Estimate Checklist Information

Quality Assurance

In the space provided below, the reviewer(s) shall fill in the headings "Reviewer" and "Review Date". The check boxes shown on the right side of each checklist are intended to be used by the reviewer(s) for quality assurance. These boxes should be checked as the reviewer(s) verifies that each item is in compliance with the appropriate standards (Yes) or is not in accordance with the standards (No).

The MCDOT Project Manager will sign the Project Manager Verification Form when all the reviews are complete.

Comment Form

If an item is not in compliance the item number shall be noted along with comments on how it shall be addressed in the Summary of Comments form. The Summary of Comments form should have the item number (example 3.14.1.a) filled out in the Item Number column.

Project Name: _____

Project Number: _____ Submittal Date: _____

Designer: _____

Project Manager: _____ Content Verification Date: _____

Reviewer: _____ Review Date: _____

Cost Estimate Checklist
General

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.14.0	✓	**GENERAL:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.0.a	❑	Compile and assemble a professional report that will serve as a public document	❑	❑	❑	❑	❑
3.14.1	✓	**COVER AND TITLE PAGE:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.1.a	❑	Include project name, project and contract numbers	❑	❑	❑	❑	❑
3.14.1.b	❑	Include report title and date (month and year are required)	❑	❑	❑	❑	❑
3.14.1.c	❑	Indicate level of completeness such as Draft or Final	❑	❑	❑	❑	❑
3.14.1.d	❑	Indicate name of consultant firm (if any) that produced the report	❑	❑	❑	❑	❑
3.14.1.e	❑	Add Maricopa County Seal	❑	❑	❑	❑	❑
3.14.1.f	❑	Include the statement "Prepared for Maricopa County Department of Transportation" if not prepared by MCDOT	❑	❑	❑	❑	❑
3.14.1.g	❑	Title page only - include the seal, with signature/date signed/expiration date of the engineer preparing the report	❑	❑	❑	❑	❑
3.14.3	✓	**TABLE OF CONTENTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.3.a	❑	Include table of contents with all headings and sub-headings	❑	❑	❑	❑	❑
3.14.3.b	❑	Add a list of figures and a separate list of tables	❑	❑	❑	❑	❑
3.14.3.c	❑	Include a list of appendices attached to the report	❑	❑	❑	❑	❑
3.14.3.d	❑	Include a listing of any additional volumes accompanying the report (i.e. Volume II - Technical Memoranda)	❑	❑	❑	❑	❑

Cost Estimate Checklist
General

3.14.4	✓	ABBREVIATIONS:	N/A	Yes	No	Yes	No
3.14.4.a	❑	Provide a listing of all abbreviations used, showing both their abbreviated and unabbreviated form	❑	❑	❑	❑	❑
3.14.4.b	❑	Explain an abbreviation or acronym the first time it appears in the Executive Summary	❑	❑	❑	❑	❑
3.14.4.c	❑	Explain an abbreviation or acronym the first time it appears in the main report body	❑	❑	❑	❑	❑
	✓	OTHERS:	N/A	Yes	No	Yes	No
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Cost Estimate Checklist
Introduction

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.14.5	✓	**INTRODUCTION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.5.a	❑	Provide introduction, background and purpose of the project	❑	❑	❑	❑	❑
3.14.5.b	❑	State the history of the project	❑	❑	❑	❑	❑
3.14.5.1	✓	**PROJECT BACKGROUND:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.5.1.a	❑	Include information about the surrounding area	❑	❑	❑	❑	❑
3.14.5.1.b	❑	Identify complete information about the reasons and need for this project	❑	❑	❑	❑	❑
3.14.5.1.c	❑	Identify the owner's intent	❑	❑	❑	❑	❑
3.14.5.1.d	❑	Identify stakeholders located within the project area	❑	❑	❑	❑	❑
3.14.5.1.e	❑	Describe sponsors, partners, and proponents	❑	❑	❑	❑	❑
3.14.5.1.f	❑	List non-MCDOT partners involved with the project	❑	❑	❑	❑	❑
3.14.5.1.g	❑	Describe type of project – roadway, safety, bridge, traffic, or maintenance	❑	❑	❑	❑	❑
3.14.5.2	✓	**PROJECT LOCATION AND DESCRIPTION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.5.2.a	❑	Describe the limits of the project study area with respect to major streets, highways, or other prominent features	❑	❑	❑	❑	❑
3.14.5.2.b	❑	Develop a project location map to show the study limits and major topographic features, including a north arrow, and a scale	❑	❑	❑	❑	❑
3.14.5.2.c	❑	Maricopa County vicinity map showing the project location in relation to major cross-streets or other identifiable landmarks	❑	❑	❑	❑	❑
3.14.5.3	✓	**EXISTING FEATURES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.5.3.a	❑	Briefly describe the existing features and status of the physical area including the roadway, roadside and surrounding area that is part of the project study area	❑	❑	❑	❑	❑
3.14.5.3.b	❑	Include existing R/W information	❑	❑	❑	❑	❑
3.14.5.3.c	❑	State the roadway classification	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Cost Estimate Checklist
Cost Estimate

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.14.6	✓	**COST ESTIMATE:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.a	❑	Include project cost estimate information in this section	❑	❑	❑	❑	❑
3.14.6.b	❑	Reference supporting unit cost documents and any assumptions used	❑	❑	❑	❑	❑
3.14.6.1	✓	**ASSUMPTIONS AND COST BASIS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.1.a	❑	Include assumptions for quantities and unit cost basis used for the cost estimate	❑	❑	❑	❑	❑
3.14.6.2	✓	**MAINTENANCE COSTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.2.a	❑	Identify maintenance costs for the design life of the recommended alternative	❑	❑	❑	❑	❑
3.14.6.2.b	❑	Identify the lifecycle costs based on maintenance and replacement costs	❑	❑	❑	❑	❑
3.14.6.2.c	❑	State the lifecycle length and associated costs for features with different lifecycles	❑	❑	❑	❑	❑
3.14.6.3	✓	**ADMINISTRATIVE COSTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.3.a	❑	Identify the design, construction management and administration costs for the project	❑	❑	❑	❑	❑
3.14.6.3.b	❑	Provide a projected timeline detailing when these costs will be incurred	❑	❑	❑	❑	❑
3.14.6.4	✓	**UTILITY RELOCATION COSTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.4.a	❑	Identify the utility relocation costs for the recommended alternative	❑	❑	❑	❑	❑
3.14.6.4.b	❑	Discuss the funding for these costs	❑	❑	❑	❑	❑
3.14.6.5	✓	**ENVIRONMENTAL MITIGATION MEASURES COST:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.5.a	❑	Identify the environmental mitigation measures costs for the project. Briefly discuss the funding for these costs	❑	❑	❑	❑	❑
3.14.6.6	✓	**CONSTRUCTION AND R/W COSTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.6.a	❑	Identify the total construction and R/W costs for the recommended alternative	❑	❑	❑	❑	❑

Cost Estimate Checklist
Cost Estimate

3.14.6.7	✓	**TOTAL COST:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.7.a	❑	Provide the total cost for the project	❑	❑	❑	❑	❑
3.14.6.8	✓	**CURRENT COSTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.6.8.a	❑	Identify the current total costs for the project	❑	❑	❑	❑	❑
3.14.6.8.b	❑	Divide costs based on the implementation plan schedule	❑	❑	❑	❑	❑
3.14.7	✓	**APPENDICES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.7.a	❑	Summary of the Technical Memorandum that will become part of the SDR section detailing the cost estimate. The contents are defined in the SDR guidelines under the cost estimate section	❑	❑	❑	❑	❑
3.14.7.b	❑	Include related supportive documents with the report as applicable	❑	❑	❑	❑	❑
3.14.7.c	❑	Documentation providing assumption for the cost computations	❑	❑	❑	❑	❑
3.14.7.d	❑	Item cost basis documentation	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Cost Estimate Checklist
Appendices

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.14.7	✓	**APPENDICES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.14.7.a	❑	Include related supportive documents with the report as applicable	❑	❑	❑	❑	❑
3.14.7.b	❑	Documentation providing assumption for the cost computations	❑	❑	❑	❑	❑
3.14.7.c	❑	Item cost basis documentation	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist Information

The checklists supplied in this section are intended to provide the user with guidance concerning what items are included for Technical Memorandum. It must be noted that these checklists are not intended to explain the engineering design process or specific design requirements, nor are they an exhaustive listing of all potentially pertinent project data, information, or criteria. As all engineering projects are unique and different, each will require that the professional(s) exercise appropriate professional judgment when determining what items must be included. For additional information regarding the engineering design process or specific design requirements, refer to the Project Development Manual (PDM)

Quality Control

On the following page, the designer shall fill in the headings "Project Name", "Project Number", "Designer", and "Submittal Date". The check boxes shown on the left side of each checklist are intended to be used by the designer preparing the submittal. These boxes should be checked as each item is completed and included in compliance with the appropriate guidelines. Should any item not be applicable, the designer shall mark that item with 'N/A' in place of checking the box. If any items not specifically mentioned in the checklist are needed, the designer shall add them to the checklists under the 'Others' category.

A Quality Control Compliance Form shall be completed and signed by the designer, attesting that the quality control process and MCDOT requirements were followed in developing this submittal. Only one QC Compliance form shall be submitted per submittal followed by the appropriate checklist(s).

Content Verification

On the following page, the MCDOT Project Manager shall fill in the headings "Project Manager" and "Content Verification Date". The check boxes shown on the right side of each checklist are intended to be used by the MCDOT Project Manager for content verification. These boxes should be checked as the MCDOT Project Manager verifies that each item is included (Yes), is not included (No), or the item is not applicable (N/A) and therefore not required.

The MCDOT Project Manager will sign the Project Manager Content Verification Form before forwarding the checklist to the reviewer(s).

Drainage Report Checklist Information

Quality Assurance

In the space provided below, the reviewer(s) shall fill in the headings "Reviewer" and "Review Date". The check boxes shown on the right side of each checklist are intended to be used by the reviewer(s) for quality assurance. These boxes should be checked as the reviewer(s) verifies that each item is in compliance with the appropriate standards (Yes) or is not in accordance with the standards (No).

The MCDOT Project Manager will sign the Project Manager Verification Form when all the reviews are complete.

Comment Form

If an item is not in compliance the item number shall be noted along with comments on how it shall be addressed in the Summary of Comments form. The Summary of Comments form should have the item number (example 3.6.1.a) filled out in the Item Number column.

Project Name: _____

Project Number: _____ Submittal Date: _____

Designer: _____

Project Manager: _____ Content Verification Date: _____

Reviewer: _____ Review Date: _____

Drainage Report Checklist
General

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.0	✓	**GENERAL:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.0.a	❑	Compile and assemble a professional report that will serve as a public document	❑	❑	❑	❑	❑
3.6.0.b	❑	Sign and Seal the Final Document	❑	❑	❑	❑	❑
3.6.1	✓	**COVER AND TITLE PAGE:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.1.a	❑	Include project name, project and contract numbers	❑	❑	❑	❑	❑
3.6.1.b	❑	Include report title and date (month and year are required)	❑	❑	❑	❑	❑
3.6.1.c	❑	Indicate level of completeness such as Draft or Final	❑	❑	❑	❑	❑
3.6.1.d	❑	Indicate name of consultant firm (if any) that produced the report	❑	❑	❑	❑	❑
3.6.1.e	❑	Add Maricopa County Seal	❑	❑	❑	❑	❑
3.6.1.f	❑	Include the statement "Prepared for Maricopa County Department of Transportation" if not prepared by MCDOT	❑	❑	❑	❑	❑
3.6.1.g	❑	Title page only - include the seal, with signature/date signed/expiration date of the engineer preparing the report	❑	❑	❑	❑	❑
3.6.3	✓	**TABLE OF CONTENTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.3.a	❑	Include table of contents with all headings and sub-headings	❑	❑	❑	❑	❑
3.6.3.b	❑	Add a list of figures and a separate list of tables	❑	❑	❑	❑	❑
3.6.3.c	❑	Include a list of appendices attached to the report	❑	❑	❑	❑	❑
3.6.3.d	❑	Include a listing of any additional volumes accompanying the report (i.e. Volume II - Technical Memoranda)	❑	❑	❑	❑	❑

Drainage Report Checklist
General

3.6.4	✓	ABBREVIATIONS:	N/A	Yes	No	Yes	No
3.6.4.a	❑	Provide a listing of all abbreviations used, showing both their abbreviated and unabbreviated form	❑	❑	❑	❑	❑
3.6.4.b	❑	Explain an abbreviation or acronym the first time it appears in the Executive Summary	❑	❑	❑	❑	❑
3.6.4.c	❑	Explain an abbreviation or acronym the first time it appears in the main report body	❑	❑	❑	❑	❑
	✓	OTHERS:	N/A	Yes	No	Yes	No
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Introduction

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.5	✓	**INTRODUCTION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.5.a	❑	Provide introduction, background and purpose of the project	❑	❑	❑	❑	❑
3.6.5.b	❑	State the history of the project	❑	❑	❑	❑	❑
3.6.5.1	✓	**PROJECT BACKGROUND:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.5.1.a	❑	Include information about the surrounding area	❑	❑	❑	❑	❑
3.6.5.1.b	❑	Identify complete information about the reasons and need for this project	❑	❑	❑	❑	❑
3.6.5.1.c	❑	Identify the owner's intent	❑	❑	❑	❑	❑
3.6.5.1.d	❑	Identify stakeholders located within the project area	❑	❑	❑	❑	❑
3.6.5.1.e	❑	Describe sponsors, partners, and proponents	❑	❑	❑	❑	❑
3.6.5.1.f	❑	List non-MCDOT partners involved with the project	❑	❑	❑	❑	❑
3.6.5.1.g	❑	Describe type of project – roadway, safety, bridge, traffic, or maintenance	❑	❑	❑	❑	❑
3.6.5.2	✓	**PROJECT LOCATION AND DESCRIPTION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.5.2.a	❑	Describe the limits of the project study area with respect to major streets, highways, or other prominent features	❑	❑	❑	❑	❑
3.6.5.2.b	❑	Develop a project location map to show the study limits and major topographic features, including a north arrow, and a scale	❑	❑	❑	❑	❑
3.6.5.2.c	❑	Maricopa County vicinity map showing the project location in relation to major cross-streets or other identifiable landmarks	❑	❑	❑	❑	❑
3.6.5.3	✓	**EXISTING FEATURES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.5.3.a	❑	Briefly describe the existing features and status of the physical area including the roadway, roadside and surrounding area that is part of the project study area	❑	❑	❑	❑	❑
3.6.5.3.b	❑	Include existing R/W information	❑	❑	❑	❑	❑
3.6.5.3.c	❑	State the roadway classification	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Drainage Design Criteria

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.6	✓	**DRAINAGE DESIGN CRITERIA:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.a	❑	Provide drainage design criteria related to project's elements	❑	❑	❑	❑	❑
3.6.6.b	❑	State the jurisdictional agency and reference their guidelines and recommendations	❑	❑	❑	❑	❑
3.6.6.c	❑	Detail the calculation methods and assumptions with justifications (if any)	❑	❑	❑	❑	❑
3.6.6.d	❑	Identify all data sources referenced	❑	❑	❑	❑	❑
3.6.6.1	✓	**DESIGN STORM:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.1.a	❑	Identify applicable design storms, usually per roadway classification for culverts, bridges, roadside design, and roadways	❑	❑	❑	❑	❑
3.6.6.2	✓	**HYDROLOGY:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.2.a	❑	Discuss the applicable method such as Rational Method, unit hydrograph method or routing method	❑	❑	❑	❑	❑
3.6.6.2.b	❑	For Rational Method provide the minimum Time of Concentration	❑	❑	❑	❑	❑
3.6.6.3	✓	**PIPE SIZES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.3.a	❑	Provide the minimum pipe size criteria for the roadways and driveways	❑	❑	❑	❑	❑
3.6.6.4	✓	**FILL COVER:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.4.a	❑	Provide the minimum and maximum fill cover for the pipes and box culverts	❑	❑	❑	❑	❑
3.6.6.5	✓	**ALLOWABLE VELOCITIES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.5.a	❑	Provide the maximum and minimum allowable velocities for the culverts	❑	❑	❑	❑	❑
3.6.6.5.b	❑	Provide allowable velocities for channels and ditches	❑	❑	❑	❑	❑
3.6.6.6	✓	**EROSION PROTECTION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.6.a	❑	State the erosion control and scour protection requirements	❑	❑	❑	❑	❑
3.6.6.7	✓	**CHANNEL SECTION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.7.a	❑	Provide the allowable side slopes (with consideration to the clear zone) for channels and ditches	❑	❑	❑	❑	❑
3.6.6.8	✓	**RETENTION OR DETENTION BASIN:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.8.a	❑	Provide the requirements for retention and/or detention basins	❑	❑	❑	❑	❑

Drainage Report Checklist
Drainage Design Criteria

3.6.6.9	✓	STORM DRAINS:	N/A	Yes	No	Yes	No
3.6.6.9.a	❑	Provide the requirements for storm drain systems design	❑	❑	❑	❑	❑
3.6.6.10	✓	**BRIDGES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.10.a	❑	Provide scour criteria for bridge foundation design	❑	❑	❑	❑	❑
3.6.6.11	✓	**DESIGN EXCEPTIONS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.6.11.a	❑	Identify and keep a log of any potential need for design exceptions and get written approval from MCDOT PM	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Existing Drainage Conditions

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.7	✓	**EXISTING DRAINAGE CONDITIONS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.7.a	❑	Discuss existing drainage conditions	❑	❑	❑	❑	❑
3.6.7.b	❑	Identify the project watershed	❑	❑	❑	❑	❑
3.6.7.c	❑	Identify natural and man-made waterways	❑	❑	❑	❑	❑
3.6.7.d	❑	Identify existing drainage structures	❑	❑	❑	❑	❑
3.6.7.e	❑	Field verify and document existing drainage structure information	❑	❑	❑	❑	❑
3.6.7.e	❑	Document findings with field photographs and notes	❑	❑	❑	❑	❑
3.6.7.f	❑	Describe the existing drainage patterns	❑	❑	❑	❑	❑
3.6.7.g	❑	Detail all data sources	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Flood Zone Classification

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.8	✓	**FLOOD ZONE CLASSIFICATION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.8.a	❑	Describe relevant flood zones	❑	❑	❑	❑	❑
3.6.8.b	❑	Include a map showing relevant flood zones and their classifications	❑	❑	❑	❑	❑
3.6.8.c	❑	Discuss impacts, improvement limitations and required mitigation measures, and application processing	❑	❑	❑	❑	❑
3.6.8.d	❑	Detail data sources	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Design Flows

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.9	✓	**DESIGN FLOWS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.9.a	❑	Identify any off-site flows estimated in previous studies	❑	❑	❑	❑	❑
3.6.9.b	❑	Confirm current applicable hydraulic design criteria including rainfall source and analytical methods	❑	❑	❑	❑	❑
3.6.9.c	❑	Calculate and discuss off-site flows using applicable analytical method	❑	❑	❑	❑	❑
3.6.9.d	❑	Delineate onsite drainage areas and quantify design peak flows using applicable analytical method	❑	❑	❑	❑	❑
3.6.9.e	❑	Detail all data sources	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Proposed Drainage Concept

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.10	✓	**PROPOSED DRAINAGE CONCEPT:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.10.a	❑	Present a proposed drainage concept based on the applicable design criteria	❑	❑	❑	❑	❑
3.6.10.b	❑	The proposed concept should preserve or improve the pre-development drainage pattern, avoid adverse impact to adjacent properties, and mitigate unavoidable impacts	❑	❑	❑	❑	❑
3.6.10.c	❑	Identify and address all assumption and limitation associated with the proposed drainage concept	❑	❑	❑	❑	❑
3.6.10.d	❑	Ensure that proposed structures convey flows to the predevelopment discharge points	❑	❑	❑	❑	❑
3.6.10.e	❑	Identify water quality regulations and the need for corresponding mitigation measures such as first flush storage basins or special types of drainage inlets that filter out regulated pollutants	❑	❑	❑	❑	❑
3.6.10.f	❑	Tailor the proposed concept to avoid or minimize impacts to existing flood zones	❑	❑	❑	❑	❑
3.6.10.g	❑	Tailor the proposed concept to minimize conflicts with exiting and planned utilities	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Adjacent Impacts

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.11	✓	**ADJACENT IMPACTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.11.a	❑	Describe all upstream and downstream impacts caused by the proposed drainage improvements and mitigation measures	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Drainage Design

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.12	✓	**DRAINAGE DESIGN:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.12.a	❑	Include drainage design information	❑	❑	❑	❑	❑
3.6.12.b	❑	Describe the proposed drainage design	❑	❑	❑	❑	❑
3.6.12.1	✓	**DRAINAGE INLETS AND STORM DRAINS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.12.1.a	❑	Identify the location and sizes of inlets and storm drains	❑	❑	❑	❑	❑
3.6.12.1.b	❑	Document inlets per maximum allowable street flows, collection structure locations, allowable flow spread criteria, and at other critical areas such as roadway intersections	❑	❑	❑	❑	❑
3.6.12.1.c	❑	State allowable types of drainage inlets (catch basins, scuppers, etc.)	❑	❑	❑	❑	❑
3.6.12.1.d	❑	If grated inlets are used, ensure documenting the appropriate grate type is selected, such as bicycle-safe grates	❑	❑	❑	❑	❑
3.6.12.1.e	❑	State the applicable clogging factors when sizing drainage inlets	❑	❑	❑	❑	❑
3.6.12.1.f	❑	At on-grade inlets, ensure that bypass flows from larger storms discharge at the designated collection point; otherwise, size the structure to capture the maximum design storm	❑	❑	❑	❑	❑
3.6.12.1.g	❑	For sump locations, ensure that the elevation difference to the nearest grade break is not less than the water depth used in the inlet analysis	❑	❑	❑	❑	❑
3.6.12.1.h	❑	Document the allowable sizes and material of storm drains and confirm that the allowable joint types and end treatments per applicable guidelines	❑	❑	❑	❑	❑
3.6.12.1.i	❑	State the minimum cover requirements for storm drain pipes	❑	❑	❑	❑	❑
3.6.12.1.j	❑	Provide discussion related to the hydraulic grade line	❑	❑	❑	❑	❑
3.6.12.1.k	❑	Ensure hydraulic grade line at inlet location is sufficiently below the lip of the gutter for the design storm	❑	❑	❑	❑	❑
3.6.12.1.l	❑	Provide the flow velocities and ensure that storm drain flow velocity is within acceptable limits	❑	❑	❑	❑	❑
3.6.12.1.m	❑	Provide details of any utility conflict and mitigating design.	❑	❑	❑	❑	❑
3.6.12.1.n	❑	Document all design procedures	❑	❑	❑	❑	❑

Drainage Report Checklist
Drainage Design

3.6.12.2	✓	CULVERT AND CHANNEL DESIGN:	N/A	Yes	No	Yes	No
3.6.12.2.a	❑	Describe the proposed culvert and channel improvements with regard to the pavement drainage, off-site drainage, and roadside ditch configuration	❑	❑	❑	❑	❑
3.6.12.2.1	✓	**CULVERTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.12.2.1.a	❑	Discuss the design procedure and any deviation from the existing flow paths	❑	❑	❑	❑	❑
3.6.12.2.1.b	❑	Document the allowable culvert sizes and material	❑	❑	❑	❑	❑
3.6.12.2.1.c	❑	Provide the minimum cover requirements	❑	❑	❑	❑	❑
3.6.12.2.1.d	❑	Provide evaluation of the applicable starting conditions	❑	❑	❑	❑	❑
3.6.12.2.1.e	❑	Document water head details	❑	❑	❑	❑	❑
3.6.12.2.1.f	❑	Document culvert design impacts and mitigations	❑	❑	❑	❑	❑
3.6.12.2.1.g	❑	Document the backwater impact from the water head at the upstream side of the culvert and ensure that it is properly incorporated in any upstream conveyance element, such as a wash or a side ditch	❑	❑	❑	❑	❑
3.6.12.2.1.h	❑	Provide the outlet velocities and ensure that they are within allowable limits	❑	❑	❑	❑	❑
3.6.12.2.1.i	❑	Document the need for an provide adequate scour protection measures at the culvert outlet	❑	❑	❑	❑	❑
3.6.12.2.1.j	❑	Document that the culvert length, end treatment, and scour protection measures accommodate clear zone requirements	❑	❑	❑	❑	❑
3.6.12.2.2	✓	**CHANNELS/ROADSIDE DITCHES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.12.2.2.a	❑	Document the roadside design approach	❑	❑	❑	❑	❑
3.6.12.2.2.b	❑	Detail the side slopes used in design	❑	❑	❑	❑	❑
3.6.12.2.2.c	❑	Document channel velocities and check against the need for appropriate channel lining for scour protection	❑	❑	❑	❑	❑
3.6.12.2.2.d	❑	The applied Manning's roughness coefficient should be documented and should correspond to the type of channel surface	❑	❑	❑	❑	❑
3.6.12.2.2.e	❑	Document and ensure that the water surface profile meets the design requirements	❑	❑	❑	❑	❑
3.6.12.2.2.f	❑	State that any applicable lining material accommodates the applicable clear zone requirements	❑	❑	❑	❑	❑

Drainage Report Checklist
Drainage Design

3.6.12.3	✓	STORMWATER STORAGE REQUIREMENTS:	N/A	Yes	No	Yes	No
3.6.12.3.a	❑	Identify stormwater storage requirements for retention, detention or water quality/first flush applications	❑	❑	❑	❑	❑
3.6.12.3.b	❑	Document design decisions related to R/W and clear zone	❑	❑	❑	❑	❑
3.6.12.3.c	❑	Detail and ensure the maximum water depth in the basins meets design requirements	❑	❑	❑	❑	❑
3.6.12.3.d	❑	Ensure retention basins are drained within specified time through surface percolation or dry wells, if necessary. Conduct percolation tests to identify applicable discharge rates	❑	❑	❑	❑	❑
3.6.12.3.e	❑	State the design parameters of the basin and provide related data	❑	❑	❑	❑	❑
3.6.12.3.f	❑	Detention basin use should be in accordance with the Flood Control District of Maricopa County design criteria	❑	❑	❑	❑	❑
3.6.12.4	✓	**SCOUR ANALYSIS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.12.4.a	❑	Evaluate and document whether drainage structures require scour protection	❑	❑	❑	❑	❑
3.6.12.4.b	❑	Discuss scour protection locations and methods	❑	❑	❑	❑	❑
3.6.12.4.c	❑	Provide supporting documentation and calculations	❑	❑	❑	❑	❑
3.6.13	✓	**CONCLUSIONS**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.13.a	❑	List the report's conclusions	❑	❑	❑	❑	❑
3.6.14	✓	**REFERENCES**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.14.a	❑	List the report's references	❑	❑	❑	❑	❑

Drainage Report Checklist
Drainage Design

3.6.15	✓	APPENDICES:	N/A	Yes	No	Yes	No
3.6.15.a	❑	Summary of the Technical Memorandum	❑	❑	❑	❑	❑
3.6.15.b	❑	Figures	❑	❑	❑	❑	❑
3.6.15.c	❑	Flood zone data	❑	❑	❑	❑	❑
3.6.15.d	❑	Hydrologic documents and calculations	❑	❑	❑	❑	❑
3.6.15.e	❑	Drainage inlets calculations	❑	❑	❑	❑	❑
3.6.15.f	❑	Storm drain calculations	❑	❑	❑	❑	❑
3.6.15.g	❑	Cross culvert calculations	❑	❑	❑	❑	❑
3.6.15.g	❑	Driveway culvert calculations	❑	❑	❑	❑	❑
3.6.15.h	❑	Channels and roadside ditches	❑	❑	❑	❑	❑
3.6.15.i	❑	Scour analysis and scour protection data	❑	❑	❑	❑	❑
3.6.15.j	❑	Excerpts from previous studies	❑	❑	❑	❑	❑
3.6.15.k	❑	Relevant documents and permits	❑	❑	❑	❑	❑
3.6.15.l	❑	Reduced copies of improvement plans	❑	❑	❑	❑	❑
3.6.15.m	❑	Electronic Data CD	❑	❑	❑	❑	❑
3.6.15.n	❑	System plan view sheet summarizing the most important drainage calculations	❑	❑	❑	❑	❑
	✓	OTHERS:	N/A	Yes	No	Yes	No
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Drainage Report Checklist
Appendices

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.6.15	✓	**APPENDICES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.6.15.a	❑	Summary of the Technical Memorandum	❑	❑	❑	❑	❑
3.6.15.b	❑	Figures	❑	❑	❑	❑	❑
3.6.15.c	❑	Flood zone data	❑	❑	❑	❑	❑
3.6.15.d	❑	Hydrologic documents and calculations	❑	❑	❑	❑	❑
3.6.15.e	❑	Drainage inlets calculations	❑	❑	❑	❑	❑
3.6.15.f	❑	Storm drain calculations	❑	❑	❑	❑	❑
3.6.15.g	❑	Cross curlerts cacluations	❑	❑	❑	❑	❑
3.6.15.h	❑	Channels and roadside ditches	❑	❑	❑	❑	❑
3.6.15.i	❑	Scour analysis and scour protection data	❑	❑	❑	❑	❑
3.6.15.j	❑	Excerpts from previous studies	❑	❑	❑	❑	❑
3.6.15.k	❑	Relevant documents and permits	❑	❑	❑	❑	❑
3.6.15.l	❑	Reduced copies of improvement plans	❑	❑	❑	❑	❑
3.6.15.m	❑	Electronic Data CD	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Utilities Overview Report Checklist Information

The checklists supplied in this section are intended to provide the user with guidance concerning what items are included for Technical Memorandum. It must be noted that these checklists are not intended to explain the engineering design process or specific design requirements, nor are they an exhaustive listing of all potentially pertinent project data, information, or criteria. As all engineering projects are unique and different, each will require that the professional(s) exercise appropriate professional judgment when determining what items must be included. For additional information regarding the engineering design process or specific design requirements, refer to the Project Development Manual (PDM)

Quality Control

On the following page, the designer shall fill in the headings "Project Name", "Project Number", "Designer", and "Submittal Date". The check boxes shown on the left side of each checklist are intended to be used by the designer preparing the submittal. These boxes should be checked as each item is completed and included in compliance with the appropriate guidelines. Should any item not be applicable, the designer shall mark that item with 'N/A' in place of checking the box. If any items not specifically mentioned in the checklist are needed, the designer shall add them to the checklists under the 'Others' category.

A Quality Control Compliance Form shall be completed and signed by the designer, attesting that the quality control process and MCDOT requirements were followed in developing this submittal. Only one QC Compliance form shall be submitted per submittal followed by the appropriate checklist(s).

Content Verification

On the following page, the MCDOT Project Manager shall fill in the headings "Project Manager" and "Content Verification Date". The check boxes shown on the right side of each checklist are intended to be used by the MCDOT Project Manager for content verification. These boxes should be checked as the MCDOT Project Manager verifies that each item is included (Yes), is not included (No), or the item is not applicable (N/A) and therefore not required.

The MCDOT Project Manager will sign the Project Manager Content Verification Form before forwarding the checklist to the reviewer(s).

Utilities Overview Report Checklist Information

Quality Assurance

In the space provided below, the reviewer(s) shall fill in the headings "Reviewer" and "Review Date". The check boxes shown on the right side of each checklist are intended to be used by the reviewer(s) for quality assurance. These boxes should be checked as the reviewer(s) verifies that each item is in compliance with the appropriate standards (Yes) or is not in accordance with the standards (No).

The MCDOT Project Manager will sign the Project Manager Verification Form when all the reviews are complete.

Comment Form

If an item is not in compliance the item number shall be noted along with comments on how it shall be addressed in the Summary of Comments form. The Summary of Comments form should have the item number (example 3.8.1.a) filled out in the Item Number column.

Project Name: _____

Project Number: _____ Submittal Date: _____

Designer: _____

Project Manager: _____ Content Verification Date: _____

Reviewer: _____ Review Date: _____

Utilities Overview Report Checklist
General

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.8.0	✓	**GENERAL:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.0.a	❑	Compile and assemble a professional report that will serve as a public document	❑	❑	❑	❑	❑
3.8.0.b	❑	Sign and Seal the Final Document	❑	❑	❑	❑	❑
3.8.1	✓	**COVER AND TITLE PAGE:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.1.a	❑	Include project name, project and contract numbers	❑	❑	❑	❑	❑
3.8.1.b	❑	Include report title and date (month and year are required)	❑	❑	❑	❑	❑
3.8.1.c	❑	Indicate level of completeness such as Draft or Final	❑	❑	❑	❑	❑
3.8.1.d	❑	Indicate name of consultant firm (if any) that produced the report	❑	❑	❑	❑	❑
3.8.1.e	❑	Add Maricopa County Seal	❑	❑	❑	❑	❑
3.8.1.f	❑	Include the statement "Prepared for Maricopa County Department of Transportation" if not prepared by MCDOT	❑	❑	❑	❑	❑
3.8.1.g	❑	Title page only - include the seal, with signature/date signed/expiration date of the engineer preparing the report	❑	❑	❑	❑	❑
3.8.3	✓	**TABLE OF CONTENTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.3.a	❑	Include table of contents with all headings and sub-headings	❑	❑	❑	❑	❑
3.8.3.b	❑	Add a list of figures and a separate list of tables	❑	❑	❑	❑	❑
3.8.3.c	❑	Include a list of appendices attached to the report	❑	❑	❑	❑	❑
3.8.3.d	❑	Include a listing of any additional volumes accompanying the report (i.e. Volume II - Technical Memoranda)	❑	❑	❑	❑	❑

Utilities Overview Report Checklist
General

3.8.4	✓	ABBREVIATIONS:	N/A	Yes	No	Yes	No
3.8.4.a	❑	Provide a listing of all abbreviations used, showing both their abbreviated and unabbreviated form	❑	❑	❑	❑	❑
3.8.4.b	❑	Explain an abbreviation or acronym the first time it appears in the Executive Summary	❑	❑	❑	❑	❑
3.8.4.c	❑	Explain an abbreviation or acronym the first time it appears in the main report body	❑	❑	❑	❑	❑
	✓	OTHERS:	N/A	Yes	No	Yes	No
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Utilities Overview Report Checklist
Introduction

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.8.5	✓	**INTRODUCTION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.5.a	❑	Provide introduction, background and purpose of the project	❑	❑	❑	❑	❑
3.8.5.b	❑	State the history of the project	❑	❑	❑	❑	❑
3.8.5.1	✓	**PROJECT BACKGROUND:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.5.1.a	❑	Include information about the surrounding area	❑	❑	❑	❑	❑
3.8.5.1.b	❑	Identify complete information about the reasons and need for this project	❑	❑	❑	❑	❑
3.8.5.1.c	❑	Identify the owner's intent	❑	❑	❑	❑	❑
3.8.5.1.d	❑	Identify stakeholders located within the project area	❑	❑	❑	❑	❑
3.8.5.1.e	❑	Describe sponsors, partners, and proponents	❑	❑	❑	❑	❑
3.8.5.1.f	❑	List non-MCDOT partners involved with the project	❑	❑	❑	❑	❑
3.8.5.1.g	❑	Describe type of project – roadway, safety, bridge, traffic, or maintenance	❑	❑	❑	❑	❑
3.8.5.2	✓	**PROJECT LOCATION AND DESCRIPTION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.5.2.a	❑	Describe the limits of the project study area with respect to major streets, highways, or other prominent features	❑	❑	❑	❑	❑
3.8.5.2.b	❑	Develop a project location map to show the study limits and major topographic features, including a north arrow, and a scale	❑	❑	❑	❑	❑
3.8.5.2.c	❑	Maricopa County vicinity map showing the project location in relation to major cross-streets or other identifiable landmarks	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Utilities Overview Report Checklist
Utilities Analysis

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.8.6	✓	**EXISTING UTILITIES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.6.a	❑	Include utilities and railroad information in this section	❑	❑	❑	❑	❑
3.8.6.b	❑	Provide a list and details of the existing utilities (including railroads) relevant to the project area	❑	❑	❑	❑	❑
3.8.6.1	✓	**FACILITY OWNERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.6.1.a	❑	List facilities by type and ownership, and provide contact information	❑	❑	❑	❑	❑
3.8.6.1.b	❑	List all data sources	❑	❑	❑	❑	❑
3.8.6.2	✓	**FACILITIES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.6.2.a	❑	Provide utility mapping ASCE 38-02 Quality Level	❑	❑	❑	❑	❑
3.8.6.2.b	❑	Discuss utilities, ownership and show them on a map	❑	❑	❑	❑	❑
3.8.6.2.c	❑	Discuss depth of research and subsequent steps needed	❑	❑	❑	❑	❑
3.8.6.2.d	❑	Describe potable water facilities	❑	❑	❑	❑	❑
3.8.6.2.e	❑	Describe sanitary sewer facilities	❑	❑	❑	❑	❑
3.8.6.2.f	❑	Describe electric power facilities	❑	❑	❑	❑	❑
3.8.6.2.g	❑	Describe natural gas facilities	❑	❑	❑	❑	❑
3.8.6.2.h	❑	Describe telecommunication facilities	❑	❑	❑	❑	❑
3.8.6.2.i	❑	Describe storm drainage facilities	❑	❑	❑	❑	❑
3.8.6.2.j	❑	Describe irrigation facilities	❑	❑	❑	❑	❑
3.8.6.2.k	❑	Describe any additional facilities	❑	❑	❑	❑	❑
3.8.6.2.l	❑	Identify new utility agreements	❑	❑	❑	❑	❑
3.8.7	✓	**UTILITY RIGHT-OF-WAY REQUIREMENTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.7.a	❑	Identify new R/W required for utilities	❑	❑	❑	❑	❑
3.8.7.b	❑	Include a map detailing location of utility R/W needs	❑	❑	❑	❑	❑
3.8.7.1	✓	**PRIOR RIGHTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.7.1.a	❑	Summarize prior rights requests and/or documentation verification	❑	❑	❑	❑	❑
3.8.7.2	✓	**FUTURE UTILITY CONSIDERATIONS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.7.2.a	❑	Detail future plans and utility improvements	❑	❑	❑	❑	❑

Utilities Overview Report Checklist
Utilities Analysis

3.8.8	✓	UTILITY CONFLICTS:	N/A	Yes	No	Yes	No
3.8.8.a	❑	Provide a list of conflicts	❑	❑	❑	❑	❑
3.8.8.b	❑	Provide a list of test-holes with results	❑	❑	❑	❑	❑
3.8.8.c	❑	Provide Utility Relocation Cost Estimate and determine who is responsible for payment	❑	❑	❑	❑	❑
3.8.8.d	❑	Compile utility relocation plans. Discuss the timing of relocation, whether before or during construction, and if the work will be done by MCDOT or the contractor	❑	❑	❑	❑	❑
3.8.9	✓	**UTILITY COORDINATION:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.9.a	❑	Summarize meetings and/or correspondence with each utility company	❑	❑	❑	❑	❑
3.8.9.b	❑	Describe mitigation measures evaluated and the actions taken to arrive at the selected mitigation measure	❑	❑	❑	❑	❑
3.8.9.c	❑	Provide a list of Transmittals when plans were sent to the utilities	❑	❑	❑	❑	❑
3.8.9.1	✓	**UTILITY SERVICE CONNECTIONS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.9.1.a	❑	Describe any utility service connections required	❑	❑	❑	❑	❑
3.8.9.1.b	❑	Specify the responsible party for connection/extension charges and monthly billings	❑	❑	❑	❑	❑
3.8.9.1.c	❑	Provide contact information for the utility responsible for providing the new service	❑	❑	❑	❑	❑
3.8.9.1.d	❑	Provide a list of service connection requests and subsequent correspondence from the utilities	❑	❑	❑	❑	❑
3.8.9.2	✓	**UTILITY AGREEMENTS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.9.2.a	❑	Describe the need for a utility agreement	❑	❑	❑	❑	❑
3.8.9.2.b	❑	List elements of agreement	❑	❑	❑	❑	❑
3.8.9.2.c	❑	Provide Utility Relocation Cost Estimate detailing responsibilities	❑	❑	❑	❑	❑

Utilities Overview Report Checklist
Utilities Analysis

3.8.10	✓	APPENDICES:	N/A	Yes	No	Yes	No
3.8.10.a	❑	TM summary chapter for inclusion in the SDR	❑	❑	❑	❑	❑
3.8.10.b	❑	Comments and Correspondence with Utilities	❑	❑	❑	❑	❑
3.8.10.c	❑	Conflicts and Resolutions Summary	❑	❑	❑	❑	❑
3.8.10.d	❑	Utility Coordination Meeting Notes, Transmittal Letters and Service Requests	❑	❑	❑	❑	❑
3.8.10.e	❑	Prior Rights Documentation	❑	❑	❑	❑	❑
3.8.10.f	❑	Utility Relocation Plans	❑	❑	❑	❑	❑
3.8.10.g	❑	Utility Clearance Letter	❑	❑	❑	❑	❑
3.8.10.h	❑	Utility Special Provisions	❑	❑	❑	❑	❑
3.8.10.i	❑	Utility Service Connection Request Letter	❑	❑	❑	❑	❑
3.8.10.j	❑	Utility agreements	❑	❑	❑	❑	❑
	✓	OTHERS:	N/A	Yes	No	Yes	No
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑

Utilities Overview Report Checklist Appendices

Designer Quality Control			Project Manager Content Verification			Reviewer Quality Assurance	
3.8.10	✓	**APPENDICES:**	**N/A**	**Yes**	**No**	**Yes**	**No**
3.8.10.a	❑	Comments and Correspondence with Utilities	❑	❑	❑	❑	❑
3.8.10.b	❑	Conflicts and Resolutions Summary	❑	❑	❑	❑	❑
3.8.10.c	❑	Utility Coordination Meeting Notes, Transmittal Letters and Service Requests	❑	❑	❑	❑	❑
3.8.10.d	❑	Prior Rights Documentation	❑	❑	❑	❑	❑
3.8.10.e	❑	Utility Relocation Plans	❑	❑	❑	❑	❑
3.8.10.f	❑	Utility Clearance Letter	❑	❑	❑	❑	❑
3.8.10.g	❑	Utility Special Provisions	❑	❑	❑	❑	❑
3.8.10.h	❑	Utility Service Connection Request Letter	❑	❑	❑	❑	❑
3.8.10.i	❑	Utility Agreement	❑	❑	❑	❑	❑
	✓	**OTHERS:**	**N/A**	**Yes**	**No**	**Yes**	**No**
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑
	❑		❑	❑	❑	❑	❑